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Notice of Allowability**Application No.**

09/675,386

Examiner

Mark Ruthkosky

Applicant(s)

SHIBAMOTO, GORO

Art Unit

1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 5/21/2004.
2. ☒ The allowed claim(s) is/are 1-3 and 5.
3. ☒ The drawings filed on 29 September 2000 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Mark Ruthkosky 5/24/04
 Mark Ruthkosky
 Primary Patent Examiner
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DETAILED ACTION

Claim Rejections - 35 USC § 103

The rejection of claims 1-3 and 5 under 35 U.S.C. 103(a) as being unpatentable over Segawa et al. (EP 936,690 A2) in view of Ibbotson et al. (US 4,287,274) has been overcome by the applicant's amendment.

Allowable Subject Matter

Claims 1-3 and 5 are allowed.

The following is a statement of reasons for allowance:

The instant claims are to a solid electrolyte cell comprising of a rolled electrolyte body consisting of a positive electrode having a strip electrode collector with both sides coated with a positive active material, and a negative electrode having a strip electrode collector with both sides coated with a negative active material, wherein the electrodes are layered with a solid electrolyte in between. The layers are rolled to form a rolled electrode body. The rolled electrodes have a current collector one-side exposed portion at their one end in the longitudinal direction positioned at the outermost circumference and the current collector one-side exposed portion covers the outer circumference of the rolled electrode body. The electrodes each have an exposed portion opposite the collector first exposed portion in the lengthwise direction that is rolled on the innermost circumference of the rolled body. The rolled electrode body is covered with a multi-layered cell casing.

The prior art does not teach a solid electrolyte cell with this configuration. The rolled electrode's current collector exposed portion that covers the outermost circumference of the rolled electrode body is used in combination with the multi-layered cell casing to dissipate heat caused when the cell is short-circuited. The exposed portion opposite the collector first exposed portion in the lengthwise direction is rolled on the innermost circumference of the rolled body to contact the negative electrode terminal. The inner exposed portion is folded in to roll the electrodes and the exposed portion is positioned inside the rolled body to be a non-reactive portion (see the paragraph bridging pages 8-9 and figure 7.)

The most pertinent art has been cited. Segawa et al. (EP 936,690 A2) teaches a non-aqueous electrolyte battery comprising of a rolled electrolyte body consisting of a positive electrode having a strip electrode collector with both sides coated with a positive active material, and a negative electrode having a strip electrode collector with both sides coated with a negative active material, wherein the electrodes are layered with a solid electrolyte in between (see claim 1 and figure 2). The rolled electrodes have a current collector one-side exposed portion at their one end in the longitudinal direction positioned at the outermost circumference and the current collector one-side exposed portion covers the outer circumference of the rolled electrode body (see claims 2-3.) The anode and cathodes are shown to have both sides of the collector free of active material at the same ends. The exterior circumference of the wound assembly is covered with the exposed portion of the collector for more than one turn. Various numbers of turns with and without active materials are described. The solid electrolyte layer contains a polymer separator imbibed with a salt and a swelling solvent. Carbonates are used as the swelling solvent in the instant example 1 and the reference. Segawa et al. (EP 936,690 A2) does not teach the

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electrode to have an exposed portion at the opposite length end of the rolled electrode. The opposite end is fully covered as shown in figures 2 and 3 of Segawa et al. (EP 936,690 A2.) In addition, Segawa et al. (EP 936,690 A2) does not teach a solid electrolyte electrochemical cell comprising a rolled electrode body covered with a multi-layered cell casing. As such, the claimed configuration is not taught and the claims are considered allowable over the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Examiner Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Ruthkosky whose telephone number is 571-272-1291. The examiner can normally be reached on FLEX schedule (generally, Monday-Thursday from 9:00-6:30.) If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached at 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mark Ruthkosky

Primary Patent Examiner

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Mark Ruthkosky
5/24/04